

Evaluation of Osteoporosis in a Selected Group of Iranian Patients with Ulcerative Colitis

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ABSTRACT

Background: Osteoporosis is a preventable and treatable disorder, reported with higher prevalence patients with ulcerative colitis but their relationship is controversial. Osteoporosis in these patients may be attributes to corticosteroid use, malnutrition and reduced intake of calcium and Vitamin D, lower levels of sex hormones, chronic inflammation and inflammatory cytokines. The aim of study was to compare bone mineral density (BMD) of femoral neck and lumbar spine in ulcerative colitis patients with age and sex matched controls.

Materials and Methods: This was a case-control Fifty patients with ulcerative colitis referred to Shariati Hospital and four private clinics from 2003 to 2006, were selected. Patients with history of long term corticosteroid use and postmenopausal women were excluded. The short term corticosteroid users (less than 3 month in the past 2 years) were included. Age and sex matched healthy Shariati Hospital staffs and their families were selected as control group. The Bone Mineral Density (BMD) was measured in lumbar spine (L1-L4), femoral neck and total hip sites. The effect of different factors such as age, sex and short-term corticosteroid use and disease duration and disease activity on BMD was evaluated in patient group. All variables were encoded and analyzed by SPSS -13.

Results: There was no significant difference between the case and the control groups in BMD of lumbar spine, femoral neck and total hip. There was no difference in decrease of BMD between males and females (P:NS). Short term corticosteroid use and disease activity at the time of densitometry had no impact on BMD of lumbar spines, femoral neck and total hip. (P:NS). Disease duration had negative effect on BMD of lumbar spine, femoral neck and total hip (P≤0.02). Aging decrease BMD of lumbar spine and femoral neck and total hip in these patients (P≤0.03).

Conclusion: Ulcerative colitis patients that are not prolonged users of corticosteroids, don't need screening for osteoporosis unless in special circumstances such as aging and long disease duration.

Keywords: Ulcerative colitis, Osteoporosis, Bone mineral density.

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INTRODUCTION

Ulcerative colitis is the most common inflammatory bowel disease (IBD) with the prevalence of 80 to 120 in 100000 in high incidence countries

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and is defined by recurrent episodes of inflammation in colonic mucosa. (1) Osteoporosis is one of the complications seen in ulcerative colitis. It may be attributed to corticosteroid use, malnutrition and reduced intake of calcium and vitamin D, chronic inflammation and inflammatory cytokines, lower levels of sex hormones as well as other well known risk factors of osteoporosis. (2-5), Organ cultures of involved IBD mucosa